URS OPERATING SERVICES

1099 18TH STREET
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TEL: (303) 296-3523
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September 30, 2002

Mr. Hays Griswold
On-Scene Coordinator
U.S. Environmental Protection Agency, Region VIII
999 18th Street, Suite 500, Mail Code: 8EPR-ER
Denver, Colorado 80202-2405

SUBJECT: START2, EPA Region VIII, Contract No. 68-W-00-118, TDD No. 0202-0002
Trip Report, Naples Truck Stop, Vernal, Uintah County, Utah

Dear Mr. Griswold:

Attached are two copies of the draft Trip Report for the Naples Truck Stop in Vernal, Uintah County, Utah. Sampling activities were conducted at the site on June 17, 2002. This document is submitted for your review and comments.

If you have any questions, please call me at 303-291-8380.

Very truly yours,

URS OPERATING SERVICES, INC.

Becci Treitz
Environmental Scientist

cc: T. F. Staible/UOS (w/o attachment)
File/UOS

EPA ACTION BLOCK

- (X) Approved
- ( ) Approved, TDD to follow
- ( ) Approved as corrected
- ( ) Disapproved
- ( ) Review with _____
- ( ) Original to _____
- ( ) Copy to _____
- ( ) Reply envelope enclosed

11/22/02 _____
Date By

TDD No. 0202-0002
P:\Start2\Naples Truck Stop2\text061702.wpd:bas

TRIP REPORT
NAPLES TRUCK STOP
Vernal, Uintah County, Utah

1.0 INTRODUCTION

This Trip Report for the Naples Truck Stop site is submitted in accordance with the task elements specified in Technical Direction Document (TDD) number 0202-0002 issued to URS Operating Services, Inc. (UOS) Superfund Technical Assessment and Response Team 2 (START2) contract #68-W-00-118 in Region VIII by the U.S. Environmental Protection Agency (EPA). Naples Truck Stop is located on the north side of State Highway 40 at 1581 South 1625 East in Naples, Uintah County, Utah (Figure 1). The START2 personnel Randy Perlis and Becci Treitz conducted the sampling event on June 17, 2002, based on the field sampling plan for Naples Truck Stop. Field activities followed the applicable UOS Technical Standard Operating Procedures (TSOPs) and the Generic Quality Assurance Project Plan (URS Operating Services, Inc. (UOS) 2000; UOS 2001).

2.0 SITE HISTORY

Naples Truck Stop was a bulk petroleum distributor that is now vacant. In 1993 a tank and line monitoring alarm at Questar Pipeline Company, a trucking company adjacent to Naples Truck Stop, made Questar aware of a leak at the neighboring Naples Truck Stop of more than 7,000 gallons of unleaded gasoline from an underground tank. The EPA Region VIII's Technical Assistance Team (TAT) installed groundwater monitoring wells at both Naples Truck Stop and on the Questar property. The Army Corps of Engineers installed an active groundwater treatment system (vacuum-enhanced pumping/biotreatment, thermal oxidizer unit, granular activated carbon filtration unit) in March 1994 that operated until 1998. In 1998 the EPA Response, Engineering, and Analytical Contract (REAC) had a passive phytoremediation system installed. The phytoremediation system consists of 300 Sioux-land poplar trees with a drip irrigation system installed and maintained by Landscapes and Vinyl Construction. Although hydrocarbons were detected in the wells from the November 2001 Jacobs Engineering sampling event, petroleum products show a decreasing trend over time in the downgradient wells.

3.0 SAMPLING ACTIVITIES

START2 personnel arrived on site at 1345 hours on June 17, 2002, to sample five wells at the Naples Truck Stop. Access and keys to the gated area were obtained from Neil at the Questar office. Sampling was performed in level D personal protective equipment. Groundwater monitoring wells VMP-02, MW-01, MW-08, MW-10, and MW-14 were sampled based on the sampling that was conducted by Jacobs Engineering in the past. The wells were either two inches or four inches in diameter. All samples were delivered by START2 and submitted for Total Petroleum Hydrocarbons for gasoline (TPH-gasoline) 8015/Total Volatile Hydrocarbons 6-10 (TVH C6-C10) and Volatile Organic Compounds (VOCs) 8260 to the ACZ Laboratory in Steamboat Springs, Colorado. Water level and total depth of the well was measured with a Solinst groundwater level meter. Parameters including pH, conductivity, total dissolved solids (TDS), and temperature were taken using a Hanna HI991301 meter. Parameters for the wells are listed in Table 1.

All of the wells were purged at least three well volumes or purged dry before the sample was taken (Appendix A). Wells were purged by hand bailing using bailers that were designated for the wells, except for well MW-01, and START2 provided a bailer for that well. Every well now has a designated bailer. Purge water was poured on the ground near the wells to evaporate. Well VMP-02 was sampled first, based on its location and accessability. Depth to water, total depth, and amount of water purged for each well is in Appendix A. The START2 personnel then moved to the gated area to find wells MW-01 and MW-14. Well MW-01 was located according to the map (Figure 2) as MW-01, but the cement around the well was labeled MW-02. No other well MW-01 was located. A sample was not taken from well MW-01 because the well water column was approximately two inches and there was not enough water to purge from the well to take a sample. Well MW-14 was not located. Well MW-15 was sampled in place of MW-14, but the sample was still labeled NTS-MW-14. Wells MW-08 and MW-10 were located and sampled. The locations of the wells sampled are shown on Figure 3.

4.0 ANALYTICAL RESULTS

Analytical results are listed in Table 2 and the laboratory analytical data and Data Validation report are in Appendix B. All samples were analyzed for TVH C6 to C10 by method 8015, and VOCs by method 8260. Sample NTS-MW-10 had the highest detections of benzene, toluene, naphthalene, ethylbenzene, m,p -xylene, and other VOCs. Sample NTS-VMP-02 was the only other sample in which benzene was detected at 70 parts

per billion (ppb). Sample NTS-VMP-02 also had the highest detection of methyl tertiary butyl ether (MTBE) at 360 ppb and sample NTS-MW-08 had an MTBE detection at 61 ppb. Sample NTS-MW-14, sample NTS-MW-20, the duplicate of sample NTS-MW-14, and the trip blank NTS-MW-21 did not have detections of VOCs, but all had results of TVH C6 to C10 between 0.023 ppm in sample NTS-MW-21 and 3.5 in sample NTS-MW-10. Sample NTS-MW-10 also had the highest detection of TVH C6 to C10 at 3.5 ppm, and sample NTS-VMP-02 had a detection of TVH at 0.659 ppm. Samples NTS-MW-14 and NTS-MW-20 had detections of TVH C6 to C10 at 0.026 ppm, and sample NTS-MW-08 had a detection of 0.22 ppm. Each of the results of the TVH C6 to C10 had a J qualifier indicating an estimated value or a UJ qualifier indicating estimated because quality control criteria were not met (Table 2).

5.0 DATA VALIDATION

The analytical results reported in Section 4.0 and Table 2 were submitted for data validation performed by START2 subcontractor TechLaw, Inc. (Appendix B).

According to the TechLaw data validation report, minor anomalies were identified in the data package. The sample taken for the MS/MSD at well MW-10 was not applicable, because the benzene detection limit was more then four times the spiking level. Values had a J estimated value for TPH-gasoline. The data validation report is attached in Appendix B. The data presented are of acceptable quality for the intended use.

6.0 SUMMARY

On June 17, 2002, START2 performed groundwater sampling at the Naples Truck Stop in Naples, Uintah County, Utah. Four monitoring wells were sampled. The map location for well MW-01 was marked as MW-02 on the well, but was left as MW-01 in notes and sample identification. Well MW-01 was dry, and therefore was not sampled. Well MW-14 was not located so well MW-15 was sampled in place of well MW-14 and the sample was labeled as NTS-MW-14. Parameters for pH, conductivity, TDS, and temperature was taken at each well. The wells were purged at least three well volumes before being sampled by hand bailing and disposing of the purge water on the nearby ground. All of the Sioux-land poplar trees were green and in good condition.

MTBE was detected in wells MW-08 and VMP-02 at 61 ppb and 360 ppb respectively. While there were detections of MTBE in the two wells, the results were lower than results from previous spring sampling events. Samples from well MW-08 had detections of 210 ppb and 120 ppb in April 2000 and June 2001 respectively. Samples from well VMP-02 also had lower detections of MTBE than 720 ppb in April 2000 and 750 ppb in June 2001. TVH C6-C10 was detected in all of the wells sampled, but most of the results were lower then the results from the sampling event in November 2001. Samples from well MW-10 had the highest detection of TVH C6-C10 at 3.5 ppm, which was lower than 10,000 ppm in November 2001. The detection of TVH C6-C10 in sample NTS-MW-08 was also lower at 0.22 ppm than 320 ppm in November 2001, and the detection of TVH C6-C10 in sample NTS-VMP-02 was lower at 0.023 ppm than the 820 ppm in November 2001. Samples from well MW-14 had a slightly higher detection of TVH C6-C10 in November 2001 with a result of 10 ppm (estimated) in November 2001 compared to the 26.5 ppm result in June 2002, and duplicate sample NTS-MW-20 had a result of 0.026 ppm. All of the results for TVH C6-C10 are qualified J estimated or UJ estimated. Overall, detections of MTBE, TVH C6-C10, and VOCs were lower than in past sampling events.

TABLE 1
Parameters for Wells

Well ID	pH	Conductivity (µS)	TDS (ppt)	Temperature (°F)
NTS-VMP-02	6.38	2.23	1.12	78.9
NTS-MW-01 (MW-02)	NA	NA	NA	NA
NTS-MW-14 (MW-15)	6.82	3.32	1.66	59.1
NTS-MW-08	7.9	2.58	1.30	66.0
NTS-MW-10	7.32	1.59	0.85	68.3

µS Micro Siemens.
TDS Total dissolved solids.
ppt Parts per thousand.

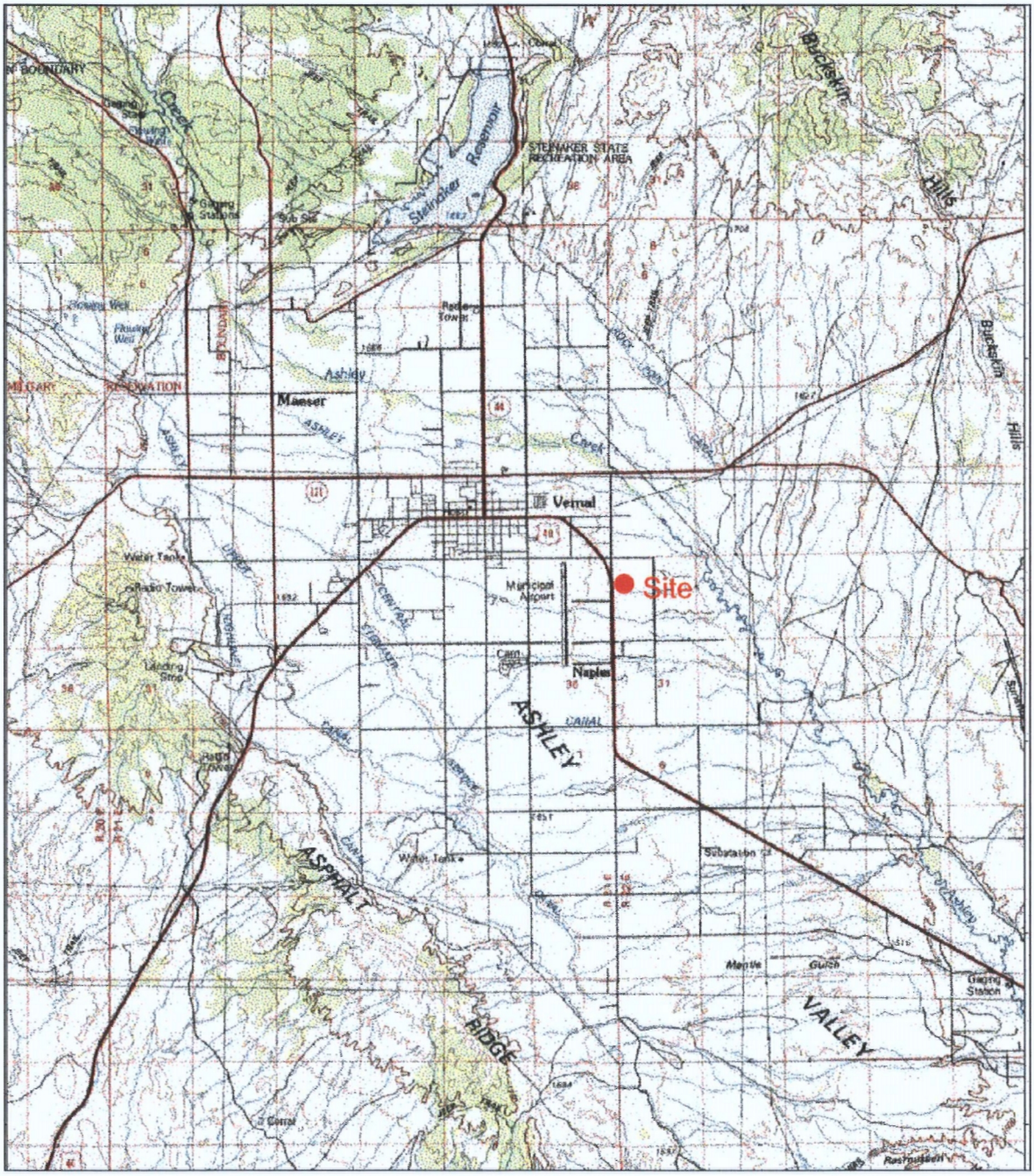
TABLE 2
Analytical Results for VOCs and TPH-gasoline

Chemical	NTS-MW-08	NTS-MW-10	NTS-VMP-02	NTS-MW-14	NTS-MW-20	NTS-MW-21
MTBE (ppb)	61	ND	360	ND	ND	ND
1,2,4- Trimethylbenzene (ppb)	ND	142	ND	ND	ND	ND
1,2 Dichloroethane (ppb)	ND	26	ND	ND	ND	ND
1,3,5 Trimethylbenzene (ppb)	ND	18	ND	ND	ND	ND
Benzene (ppb)	ND	1,490	70	ND	ND	ND
Ethylbenzene (ppb)	ND	500	ND	ND	ND	ND
Isopropylbenzene (ppb)	ND	6 J	ND	ND	ND	ND
m,p xylene (ppb)	ND	150	ND	ND	ND	ND
Naphthalene (ppb)	ND	9 J	ND	ND	ND	ND
o-xylene(ppb)	ND	7 J	ND	ND	ND	ND
n Propylbenzene (ppb)	ND	63	ND	ND	ND	ND
Toluene (ppb)	ND	19	ND	ND	ND	ND
TVH C6 to C10 (ppm)	0.220 J	3.5 J	0.659 J	0.026 UJ	0.026 UJ	0.023 UJ

ND Non Detect
J Estimated value
UJ The reported quantitation limit is estimated because Quality Control criteria were not met.

URS Operating Services, Inc.
START2, EPA Region VIII
Contract No. 68-W-00-118

Naples Truck Stop – TR
Revision: 0
Date: 09/2002



2 0 2 Miles

SCALE: 1" = 2 Miles

QUADRANGLE LOCATION

Trip Report
TDD No. 0202-0002

Naples Truck Stop
Naples, Utah

Site Location Map
Figure 1

September 2002

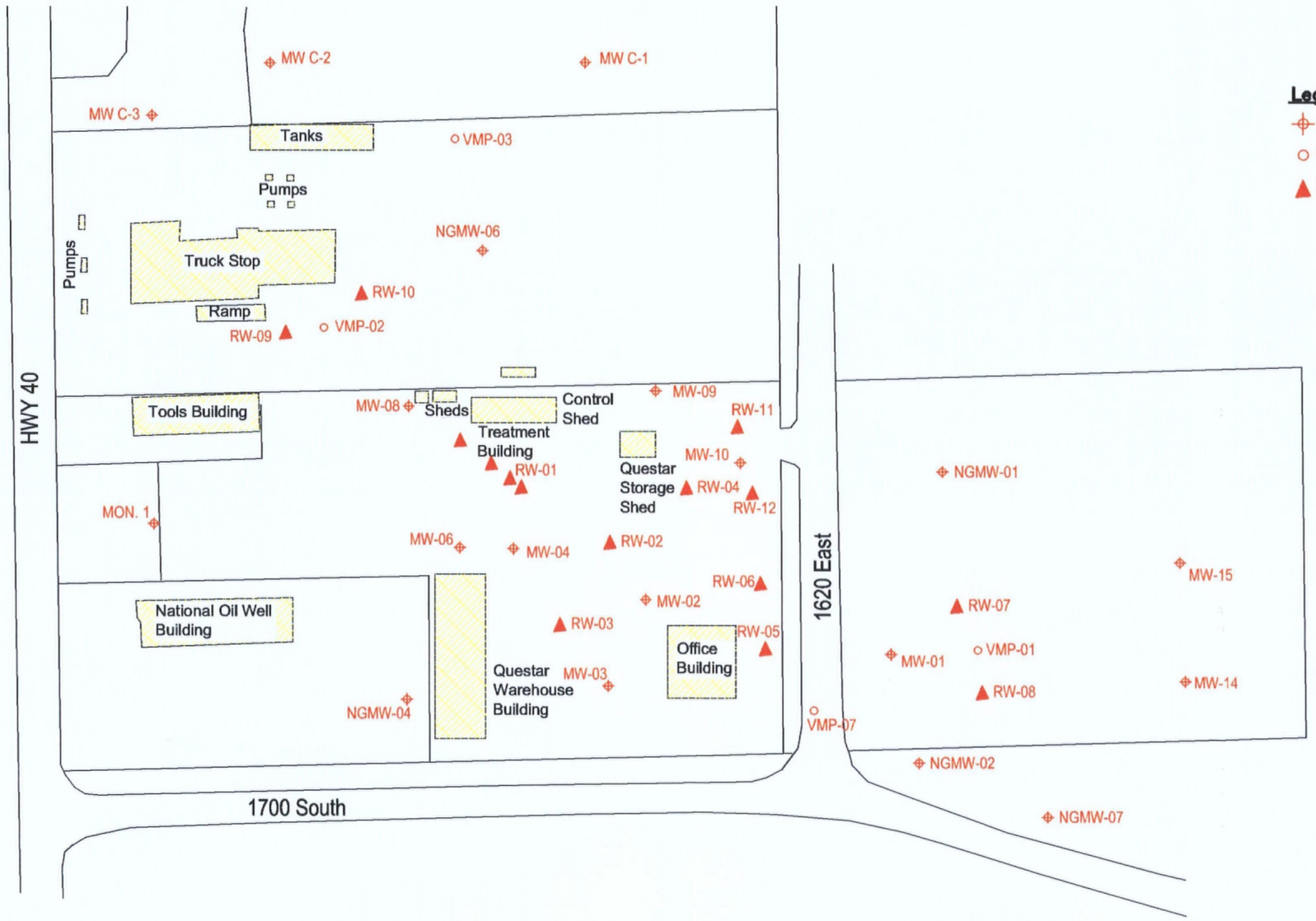
URS OPERATING SERVICES

TDD No. 0202-0002
P:\START2_____

DATE: 09/30/2002 Rebecca (TtEMI) FILENAME: H:\DRAWINGS\Naples Truck stop\Site-location.dwg

URS Operating Services
START2, EPA Region VIII
Contract No. 68-W-00-118

Naples Truck Stop – TR
Revision: 0
Date: 09/2002



Legend

MW-02	Monitoring Well Location
VMP-02	Vapor Monitoring Location
RW-02	Recovery Well

100 0 100 Feet
SCALE: 1" = 100'

TDD No. 0202-0002
P:\START2\

Trip Report
TDD No. 0202-0002

Naples Truck Stop
Naples, Utah

Former Well Locations
Figure 2

September 2002

URS OPERATING SERVICES

DATE: 09/30/2002 Rebecca (TtEMI) FILENAME: H:\DRAWINGS\Naples Truck stop\Site-map-original.dwg

URS Operating Services
START2, EPA Region VIII
Contract No. 68-W-00-118

Naples Truck Stop – TR
Revision: 0
Date: 09/2002

Legend

MW-02 Monitoring Wells Sampled (06/2002)

100 0 100 Feet

SCALE: 1" = 100'

TDD No. 0202-0002
P:\START2\

DATE: 09/30/2002 Rebecca (TtEMI) FILENAME: H:\DRAWINGS\Naples Truck stop\Site-map.dwg

Trip Report
TDD No. 0202-0002

Naples Truck Stop
Naples, Utah

Site Map
Figure 3

September 2002

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APPENDIX A

Monitoring Well Sampling Data Sheets

6-17-02

URS OPERATING SERVICES, INC.	**Monitoring Well Sampling Data**	Records Management Data

Project Number	Project Name	Page
0202-0002	Naples Truck Stop	1 of 1
Well/Borehole Number	**Well/Borehole Location**	**Static Water Level**
VMP-02		ft.

Sample No.: VMP-02
Sampling Method: _____
Bar. Pres.: _____

Elevation: _____
Weather: Sunny
Amb. Temp. (F°): 88°

WATER ELEVATION DATA

1) Depth Water Surface: 8.4' (from casing top as marked)
Method of Measurement: _____

2) Static Water Level Elevation: _____ (casing top elevation minus 1)

3) Depth to Well Bottom: 12.1 (from casing top as marked)

4) Height of Water Column (h): 3.7 (3 minus 1)

Product obs: ☐ Yes ☐ No

Depth to Product: _____
Method of Measurement: _____

Volume of water in Well: (x) (h) = 0.603 gals
(for 2" x = 0.163 gal/ft fpr 4" x = 0.653 gal/ft)
Amount of Water Removed from Well: 7 gal
Method of Water Removal: hand bail

Was Well Pumped Dry? ☐ Yes ☐ No

WELL PURGE DATA

Method: _____
Date: _____ Total Volume/Time: _____

Time	Temp °C F	Conductivity	pH	Turbidity	Removed	Flow Rate	Observations
1430	78.9	2.23µS	6.38	1.12ppt	7 gal	—	—

WATER SAMPLE DATA

Water Temp: _____ °C
Method of Measurement: _____
Specific Conductance: _____ micromhos
Method of Measurement: _____
pH: _____
Containers Used (VOA Vial, 1 liter jar etc.): _____
Physical Appearance: _____
Remarks: _____

Recorded By:	Date:	Checked By:	Date:

6-17-02

URS OPERATING SERVICES, INC.	**Monitoring Well Sampling Data**	Records Management Data

Project Number	Project Name	Page
0202-0002	Naples truck Stop	1 of 1
Well/Borehole Number	**Well/Borehole Location**	**Static Water Level**
MW-01		ft.

Sample No.: MW-01
Sampling Method: _____
Bar. Pres.: _____

Elevation: _____
Weather: Sunny-hot
Amb. Temp. (F°): 95°F

WATER ELEVATION DATA

1) Depth Water Surface: 9.7'
(from casing top as marked)

Method of Measurement: _____

2) Static Water Level Elevation: _____
(casing top elevation minus 1)

3) Depth to Well Bottom: 9.9'
(from casing top as marked)

Product obs: ☐ Yes ☐ No

Depth to Product: _____
Method of Measurement: _____

4) Height of Water Column (h): 2"
(3 minus 1)

Volume of water in Well: (x) (h) = .005 gals
(for 2" x = 0.163 gal/ft fpr 4" x = 0.653 gal/ft)
Amount of Water Removed from Well: 0
Method of Water Removal: hand bail

Was Well Pumped Dry? ☒ Yes ☐ No

WELL PURGE DATA NA

Method: _____
Date: _____ Total Volume/Time: _____

Time	Temp °C	Conductivity	pH	Turbidity	Removed	Flow Rate	Observations

WATER SAMPLE DATA

Water Temp: _____ °C
Specific Conductance: _____ micromhos
pH: _____
Containers Used (VOA Vial, 1 liter jar etc.): _____
Physical Appearance: _____
Remarks: _____

Method of Measurement: _____
Method of Measurement: _____

Recorded By:	Date:	Checked By:	Date:

6-17-02

URS OPERATING SERVICES, INC.

Monitoring Well Sampling Data

Records Management Data

Project Number	Project Name	Page
0202-0002	Naples Truck Stop	1 of 1
Well/Borehole Number	**Well/Borehole Location**	**Static Water Level**
MW-14 (15)		ft.

Sample No.: MW-14 and MW-20 dup.
Sampling Method: _____
Bar. Pres.: _____

Elevation: _____
Weather: Sunny
Amb. Temp. (F°): 88°F

WATER ELEVATION DATA

1) Depth Water Surface: 7.4' (from casing top as marked)
Method of Measurement: _____

2) Static Water Level Elevation: _____ (casing top elevation minus 1)

3) Depth to Well Bottom: 16' (from casing top as marked)

4) Height of Water Column (h): 9.6 (3 minus 1)

Product obs: ☐ Yes ☐ No
Depth to Product: _____
Method of Measurement: _____

Volume of water in Well: (x) (h) = 6.2 gals
(for 2" x = 0.163 gal/ft for 4" x = 0.653 gal/ft)
Amount of Water Removed from Well: ~~MW-20~~ 19 gal
Method of Water Removal: hand bail

Was Well Pumped Dry? ☐ Yes ☒ No

WELL PURGE DATA

Method: _____
Date: _____ Total Volume/Time: _____

Time	Temp °C/F	Conductivity	pH	Turbidity	Removed	Flow Rate	Observations
1530	59.1°F	3.32mS	6.82	1.66 ppt	18	—	—

WATER SAMPLE DATA

Water Temp: _____ °C
Method of Measurement: _____
Specific Conductance: _____ micromhos
Method of Measurement: _____
pH: _____
Containers Used (VOA Vial, 1 liter jar etc.): _____
Physical Appearance: _____
Remarks: _____

Recorded By:	Date:	Checked By:	Date:

6-17-02

URS OPERATING SERVICES, INC.	**Monitoring Well Sampling Data**	Records Management Data

Project Number	Project Name	Page
0209-0002	Naples Truck Stop	1 of 1
Well/Borehole Number	**Well/Borehole Location**	**Static Water Level**
MW-08		ft.

Sample No.: MW-08
Sampling Method: _____
Bar. Pres.: _____

Elevation: _____
Weather: Sunny
Amb. Temp. (F°): 88F

WATER ELEVATION DATA

1) Depth Water Surface: 7.6' (from casing top as marked)
Method of Measurement: _____

2) Static Water Level Elevation: _____ (casing top elevation minus 1)

3) Depth to Well Bottom: 13.2' (from casing top as marked)

4) Height of Water Column (h): 5.6 (3 minus 1)

Product obs: ☐ Yes ☒ No

Depth to Product: _____
Method of Measurement: _____

Volume of water in Well: (x) (h) = 0.9128 gals
(for 2" x = 0.163 gal/ft fpr 4" x = 0.653 gal/ft)
Amount of Water Removed from Well: 3 gal
Method of Water Removal: hand bail

Was Well Pumped Dry? ☐ Yes ☐ No

WELL PURGE DATA

Method: _____
Date: _____ Total Volume/Time: _____

Time	Temp °C/F	Conductivity	pH	Turbidity	Removed	Flow Rate	Observations
1555	66.0	2.58µS	7.90	1.30ppt	3 gal	—	—

WATER SAMPLE DATA

Water Temp: _____ °C
Method of Measurement: _____
Specific Conductance: _____ micromhos
Method of Measurement: _____
pH: _____
Containers Used (VOA Vial, 1 liter jar etc.): _____
Physical Appearance: _____
Remarks: _____

Recorded By:	Date:	Checked By:	Date:

6-17-02

URS OPERATING SERVICES, INC.

Monitoring Well Sampling Data

Records Management Data

Project Number	Project Name	Page
0202-0002	Naples Truck Stop	1 of 1

Well/Borehole Number	Well/Borehole Location	Static Water Level
MW-10		ft.

Sample No.: MW-10 MS/MSD

Sampling Method: _____

Bar. Pres.: _____

Elevation: _____

Weather: Sunny

Amb. Temp. (F°): 88 °F

WATER ELEVATION DATA

1) Depth Water Surface: 7.4' (from casing top as marked)

Method of Measurement: _____

2) Static Water Level Elevation: _____ (casing top elevation minus 1)

3) Depth to Well Bottom: 13.9' (from casing top as marked)

4) Height of Water Column (h): 6.5' (3 minus 1)

Volume of water in Well: (x) (h) = 4.2 gals
(for 2" x = 0.163 gal/ft fpr 4" x = 0.653 gal/ft)

Amount of Water Removed from Well: 5.5

Method of Water Removal: hand bail

Product obs: ☐ Yes ☐ No

Depth to Product: _____

Method of Measurement: _____

Was Well Pumped Dry? ☒ Yes ☐ No

WELL PURGE DATA

Method: _____

Date: _____ Total Volume/Time: _____

Time	Temp °C/F	Conductivity	pH	Turbidity	Removed	Flow Rate	Observations
1625	68.3	1.59mS	7.32	0.85ppt	5.5gal	—	—

WATER SAMPLE DATA

Water Temp: _____ °C

Method of Measurement: _____

Specific Conductance: _____ micromhos

Method of Measurement: _____

pH: _____

Containers Used (VOA Vial, 1 liter jar etc.): _____

Physical Appearance: _____

Remarks: _____

Recorded By:	Date:	Checked By:	Date:

APPENDIX B

Validation Reports and Laboratory Data

L37893

L37292

06/19/02

EPA USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case
Client No:
SDG No: **L**

Date Shipped: 6/18/2002
Carrier Name: URS
Airbill:
Shipped to: ACZ
2773 Downhill Drive
Steamboat Springs CO
80487
(800) 334-4549

Chain of Custody Record

Sampler Signature: Becci Treitz

Relinquished By	(Date / Time)	Received By	(Date / Time)
1 Becci Treitz	6/18/02 1200	Gerry Denfeld	6/18/02 12:04
2			
3			
4			

For Lab Use Only
Lab Contract No:
Unit Price:
Transfer To:
Lab Contract No:
Unit Price:

	SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
~~87~~	~~NTS-MW-01~~	~~Ground Water/ Becci Treitz~~	~~L/G~~	~~8260 (21), TVPH (21)~~	~~81 (HCL), 82 (HCL), 83 (HCL), 84 (HCL), 85 (HCL), 86 (HCL) (6)~~	~~NTS-MW-01~~	~~S: 6/17/2002 E: 6/18/2002~~		
1	NTS-MW-08 (6) TMW	Ground Water/ Becci Treitz	L/G	8260 (21), TVPH (21)	810 (HCL), 811 (HCL), 812 (HCL), 87 (HCL), 88 (HCL), 89 (HCL) (6)	NTS-MW-08	S: 6/17/2002 E: 6/18/2002	1600	
2	NTS-MW-10 (3) (1)	Ground Water/ Becci Treitz	L/G	8260 (21), TVPH (21)	813 (HCL), 814 (HCL), 815 (HCL), 816 (HCL), 817 (HCL), 818 (HCL) (6)	NTS-MW-10	S: 6/17/2002 E: 6/18/2002	1625	
3.	NTS-MW-10 MS (3)	Ground Water/ Becci Treitz	L/G	8260 (21), ~~TVPH (21)~~	819 (HCL), 820 (HCL), 821 (HCL), 822 (HCL), 823 (HCL), 824 (HCL) (6)	NTS-MW-10 MS	S: 6/17/2002 E: 6/18/2002	1625	
4.	NTS-MW-10 MSD (2)	Ground Water/ Becci Treitz	L/G	8260 (21), ~~TVPH (21)~~	825 (HCL), 826 (HCL), 827 (HCL), 828 (HCL), 829 (HCL), 830 (HCL) (6)	NTS-MW-10 MSD	S: 6/17/2002 E: 6/18/2002	1625	
5.	NTS-MW-14 (6)	Ground Water/ Becci Treitz	L/G	8260 (21), TVPH (21)	831 (HCL), 832 (HCL), 833 (HCL), 834 (HCL), 835 (HCL), 836 (HCL) (6)	NTS-MW-14	S: 6/17/2002 E: 6/18/2002	1535	
6.	NTS-MW-20 (6)	Ground Water/ Becci Treitz	L/G	8260 (21), TVPH (21)	837 (HCL), 838 (HCL), 839 (HCL), 840 (HCL), 841 (HCL), 842 (HCL) (6)	NTS-MW-20	S: 6/17/2002 E: 6/18/2002	1540	
7.	NTS-MW-21 (3)	Ground Water/ Becci Treitz	L/G	8260 (21), TVPH (21)	843 (HCL), 844 (HCL), 845 (HCL), 846 (HCL), 847 (HCL), 848 (HCL) (6)	NTS-MW-21	S: 6/17/2002 E: 6/18/2002	1400	
~~88~~	~~NTS-MW-22~~	~~Ground Water/ Becci Treitz~~	~~L/G~~	~~8260 (21), TVPH (21)~~	~~849 (HCL), 850 (HCL), 851 (HCL), 852 (HCL), 853 (HCL), 854 (HCL) (6)~~	~~NTS-MW-22~~	~~S: 6/17/2002 E: 6/18/2002~~		
~~89~~	~~NTS-MW-23~~	~~Ground Water/ Becci Treitz~~	~~L/G~~	~~8260 (21), TVPH (21)~~	~~855 (HCL), 856 (HCL), 857 (HCL), 858 (HCL), 859 (HCL), 860 (HCL) (6)~~	~~NTS-MW-23~~	~~S: 6/17/2002 E: 6/18/2002~~		

Shipment for Case Complete?N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal Intact?__ Shipment Iced?__

8260 = Volatile Organics, TVPH = Total Petroleum Hydrocarbons - Gasoline Ran

TR Number: 8-540638614-061202-0001

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

USEPA Contract Laboratory Program
Generic Chain of Custody

Reference Case
Client No:
SDG No: **L**

Date Shipped: 6/18/2002	**Chain of Custody Record**	**Sampler Signature:**	**For Lab Use Only**
Carrier Name: URS	**Relinquished By** (Date / Time)	**Received By** (Date / Time)	**Lab Contract No:**
Airbill:	1 6/17/02 1700		**Unit Price:**
Shipped to: ACZ, 2773 Downhill Drive, Steamboat Springs CO 80487, (800) 334-4549	2		**Transfer To:**
	3		**Lab Contract No:**
	4		**Unit Price:**

SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	FOR LAB USE ONLY SAMPLE No.	Sample Condition On Receipt
8. NTS-VMP-02 (6)	Ground Water/ Becci Treitz	L/G	8260 (21), TVPH (21)	861 (HCL), 862 (HCL), 863 (HCL), 864 (HCL), 865 (HCL), 866 (HCL) (6)	NTS-VMP-02	S: 6/17/2002 1440 E: 6/18/2002		

Shipment for Case Complete? N	**Sample(s) to be used for laboratory QC:**	**Additional Sampler Signature(s):**	**Cooler Temperature Upon Receipt:**	**Chain of Custody Seal Number:**
Analysis Key:	**Concentration:** L = Low, M = Low/Medium, H = High	**Type/Designate:** Composite = C, Grab = G	**Custody Seal Intact?**	**Shipment Iced?**

8260 = Volatile Organics, TVPH = Total Petroleum Hydrocarbons - Gasoline Ran

TR Number: 8-540638614-061202-0001

LABORATORY COPY

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-9222

560 GOLDEN RIDGE ROAD, SUITE 130, GOLDEN, CO 80401
PHONE: (303) 763-7188
FAX: (303) 763-4896

TECHLAW INC.

September 5, 2002

Mr. Kent Alexander
URS Operating Services
1099 18th Street, Suite 710
Denver, CO 80202

RE: Transmittal of Data Validation Report
Naples Truck Stop
TDD No. 0202-0002
Report No. L37293

Dear Mr. Alexander:

Please find enclosed one validation report for TDD No. 0202-0002 for the Naples Truck Stop project. This report is for the validation of volatile organic and total petroleum hydrocarbon analyses. Additionally, the missing data, which was provided by the laboratory in .pdf format, has been emailed to you electronically.

If you have any questions regarding the enclosed report, please contact me at (303) 763-7188.

Yours sincerely,
TECHLAW, INC.

Lisa Tyson
Staff Consultant

enclosure
IF: 01027-092

REGION VIII
DATA VALIDATION REPORT
ORGANICS

TDD No.	Site Name		Operable Unit
0202-0002	Naples Truck Stop		
RPM/OSC Name			
Hays Griswold			
Contractor Laboratory	**Contract No.**	**Job No.**	**Laboratory DPO/Region**
ACZ Laboratories Inc.	Not Indicated	L37293	

Review Assigned Date August 2, 2002 Data Validator Bill Fear
Review Completion Date September 5, 2002 Report Reviewer Lisa Tyson

Station Number	Laboratory ID	Matrix	Analysis
NTS-MW-08	L37293-01	Water	Volatile Organics and Total Petroleum Hydrocarbons (TVH) analyses by SW-846 Methods 8260B and 8015B
NTS-MW-10	L37293-02		
NTS-MW-14	L37293-05		
NTS-MW-20	L37293-06		
NTS-MW-21	L37293-07		
NTS-VMP-02	L37293-08		

DATA QUALITY STATEMENT

( ) Data are ACCEPTABLE according to EPA Functional Guidelines with no qualifiers (flags) added by the reviewer.
( ) Data are UNACCEPTABLE according to EPA Functional Guidelines.
(X) Data are acceptable with QUALIFICATIONS noted in review.

Telephone/Communication Logs Enclosed? Yes _____ No ___X_____

TPO Attention Required? Yes _____ No ___X__ If yes, list the items that require attention:

ORGANIC DATA VALIDATION REPORT
REVIEW NARRATIVE SUMMARY

This data package was reviewed according to the EPA document "USEPA Contract Laboratory Program National Functional Guidelines For Organic Data Review,"October 1999, modified for the methods used.

Raw data were reviewed for completeness and transcription accuracy onto the summary forms. Approximately 10-20% of the results reported in each of the samples, calibrations, and QC analyses were recalculated and verified. If problems were identified during the recalculation of results, a more thorough calculation check was performed.

The data package, TDD No.0202-0002, Job No. L37293 consisted of six water samples for volatile and TVH organic analyses by SW-846 Methods 8260B and 8015B.

The laboratory performed a library search on the non-target sample components. TICs reported in both samples and blanks were rejected (R). The following tables list data qualifiers added to the data. (Please see Data Qualifier Definitions, attached to the end of this report.)

Sample Number	Volatile Compound	Qualifier	Reason For Qualification	Review Section
All samples	Methylene chloride Vinyl acetate 1,3-Dichloropropane m/p- Xylene o-Xylene Styrene 1,3-Dichlorobenzene 4-Isopropyl toluene	J/UJ	Initial calibration %RSDs exceeded 15%	4

Sample Number	TVH	Qualifier	Reason For Qualification	Review Section
NTS-MW-08, NTS-MW-10, NTS-MW-14, NTS-VMP-02	TVH	J	Holding times exceeded	2
All samples			Continuing calibration %D exceeded 15%	3
NTS-MW-14, NTS-MW-20, NTS-MW-21		U	Blank contamination	6

Method Number 8260
Revision B

Organic Data Completeness Checklist
VOA

Quality Control Summary Package
- P Surrogate Recovery Summary
- P MS/MSD or LCS Summary
- NA Method Blank Summary
- R GC/MS Tuning and Mass Calibration

Sample Data Package
- P Holding Times (CLASS Sample Traffic Reports/UOS Chain-of-Custody)
- P Organic Analysis Data Sheets
- P Reconstructed Ion Chromatogram(s) (RIC)
- P Quantitation Reports
- P Mass Spectral Data
- NA Mass Spectral Library Search for TICs

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- R Initial Calibration Data for each instrument
- P Continuing Calibration Data for each instrument
- P Internal Standard Area Summary
- P VOA Standards RICs
- P VOA Standards Quantitation Reports

Raw QC Package
- R BFB mass spectra and mass listings

Reagent Blank Data
- P Organic Analysis Data Sheets
- P RIC or Total Ion Chromatogram
- P Quantitation Reports
- P Mass Spectral Data
- NA Library Search for TICs

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P RIC
- P Quantitation Reports
- NA Mass Spectral Data
- NA Library search for TICs

KEY:
- P = Provided in original data package
- R = Provided as resubmission
- NP = Not provided in original data package or as resubmission
- NR = Not required
- NA = Not applicable to this data package or analysis

1. DELIVERABLES

All deliverables were present as specified in the subcontract.

VOA: Yes___ No_X_

Comments: This data package was submitted in an electronic format rather than as a hard copy. Data for the 06/06/02 tune and initial calibration were not provided. The laboratory was contacted and the data were received electronically.

2. HOLDING TIMES AND PRESERVATION CRITERIA

All holding times and preservation criteria were met.

VOA: Yes_X_ No___

Comments: The water samples were analyzed within 7 days from sample collection. The samples were received at the laboratory within the 4 ± 2 °C temperature criteria. No shipping or receiving problems were noted. Chain-of-custody, summary forms, and raw data were evaluated.

3. BFB PERFORMANCE RESULTS

The bromofluorobenzene (BFB) performance results were within the specified control limits. All appropriate BFB results were included.

VOA: Yes_X_ No___

Comments: BFB instrument performance checks were run for each 12 hours of analysis. Ion abundance criteria were met and were verified from raw data.

4. INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS

Initial instrument calibrations were performed according to method requirements and met the project specified control limits.

VOA: Yes___ No_X_

Comments: The initial calibration relative response factors (RRFs) for the SPCCs met the minimum RRF method requirements and the RRFs for all other volatile target compounds and surrogate compounds were greater than or equal to 0.01. The percent relative standard deviations (%RSDs) for the CCC compounds were less than or equal to 30%. Summary forms and raw data were evaluated.

The following table lists the percent relative standard deviations (%RSDs) that exceeded 15% for the non-CCC compounds and qualifiers added to the data:

Compound	%RSD	Associated Samples	Qualifiers
Methylene chloride	16.4	All samples	J/UJ
Vinyl acetate	18.9		
1,3-Dichloropropane	15.2		
m/p Xylene	17.0		
o-Xylene	16.8		
Styrene	15.5		
1,3-Dichlorobenzene	16.1		
4-Isopropyl toluene	15.8		

Continuing instrument calibrations were performed according to method requirements and met project specified control limits.

VOA: Yes_X_ No___

Comments: Continuing calibration standards containing both target compounds and surrogate compounds were analyzed at the beginning of each 12-hour analysis period. Continuing calibration RRFs for the SPCCs met the minimum RRF method requirements, and the RRFs for all other volatile target compounds and surrogate compounds were greater than or equal to 0.01. The percent differences (%Ds) for the CCCs were less than the 20% method criteria. (%Ds were not evaluated for non-CCC compounds.) Summary forms and raw data were evaluated.

5. SURROGATE COMPOUND RECOVERY

Surrogate compound recovery analysis was performed according to method requirements and results met project specified control limits.

VOA: Yes_X_ No___

Comments: Surrogate spikes were added to all samples and blanks. All recoveries were within QC limits. Form 1s and raw data were evaluated.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Matrix Spike/Matrix Spike Duplicate (MS/MSD) and blank spike/blank spike duplicate (BS/BSD) analyses were performed according to method requirements and results met recommended recovery and precision limits.

VOA: Yes___ No_X_

Comments: MS/MSD analyses were performed on sample NTS-MW-10. The laboratory also performed a laboratory control sample (LCS) analyses. All percent recoveries and relative percent differences (RPDs) were within the laboratory QC limits for the LCS analyses. Summary forms and raw data were evaluated were evaluated.

The following table lists the results for the MS/MSD analyses that were outside criteria; however, no action is taken based solely on MS/MSD data:

Sample	Compound	Percent Recovery		RPD	Control Limits		Qualifiers
		MS	MSD		% R	RPD	
NTS-MW-10	Benzene	43%	0%	18	76-127	14	None

The sample result for benzene was greater than 4 times the spiking level and therefore, the recoveries for benzene should be considered not applicable.

7. INTERNAL STANDARD AREA

Internal standard area analysis was performed according to method requirements and results met specified control limits.

VOA: Yes_X_ No___

Comments: Internal standard area counts did not vary by more than a factor of two from the associated 12-hour calibration standard. The internal standard retention times did not vary more than ± 30 seconds from the retention time of the associated 12-hour calibration standards. Summary forms and raw data were evaluated.

8. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to method requirements and results met specified limits.

VOA: Yes_X_ No__

Comments: A method blank analysis was performed after the calibration standards and once for every 12-hour time period beginning with a BFB analysis. Summary forms and raw data were evaluated.

The method blank was not contaminated with target compounds.

TICs were not reported for these analyses.

9. SAMPLE RESULTS

The sample results were reviewed and all compound identifications were acceptable and met contract requirements.

VOA: Yes_X_ No___

Comments: Sample relative retention times (RRTs) were within ± 0.06 RRT units of the standard RRT. Ions present in the standard mass spectrum at a relative intensity greater than 10% were present in the sample spectrum. Relative intensities of ions agreed within ± 30% between standard and sample spectra. All samples results and reporting limits were correctly calculated.

Benzene and ethylbenzene are reported from a five times dilution for sample NTS-MW-10.

Sample NTS-VMP-02 was analyzed at a five times dilution.

10. Additional Comments or Problems/Resolutions Not Addressed Above

VOA: Yes___ No_X_

Comments: None.

Method Number 8015
Revision B

Organic Data Completeness Checklist
TPH-PURGEABLES

Quality Control Summary Package
- P Surrogate Recovery Summary
- P MS/MSD or LCS Summary
- P Method Blank Summary

Sample Data Package
- P Holding Times (CLASS Sample Traffic Reports/UOS Chain-of-Custody)
- P Organic Analysis Data Sheets
- P GC Chromatogram(s)

Standards Data Package
- NR Current List of Laboratory/Instrument Detection Limits
- R Initial Calibration Summary
- P Continuing Calibration Summary
- P Analytical Sequence
- P Standard Chromatograms and Data System Printouts

Reagent Blank Data
- P Organic Analysis Data Sheets
- P GC Chromatograms and Data System Printouts

Matrix Spike/Matrix Spike Duplicate Data
- P Organic Analysis Data Sheets
- P GC Chromatograms and Data System Printouts

KEY:
- P = Provided in original data package
- R = Provided as resubmission
- NP = Not provided in original data package or as resubmission
- NR = Not required
- NA = Not applicable to this data package or analysis

1. DELIVERABLES

All deliverables were present as specified in the subcontract.

TPH-Purgeables: Yes___ No_X_

Comments: The initial calibration data was not in the data package. The laboratory was contacted and the data were received electronically.

Incorrect results were initially reported, as the samples were reported with units of mg/L, but the results were not corrected from the ug/L raw data values. As a result, the values were wrong by a factor of 1000. The corrected results were resubmitted by the laboratory.

2. HOLDING TIMES AND PRESERVATION CRITERIA

All holding times and preservation criteria were met.

TPH-Purgeables: Yes___ No_X_

Comments: The COC indicated that the samples were preserved with HCl; however, the instrument run log indicated that samples NTS-MW-08, NTS-MW-10, NTS-MW-14, and NTS-VMP-02 were not properly preserved to a pH <2.

The following table lists the samples analyzed outside the seven day holding time for unpreserved water samples, days outside holding time, and qualifiers added to the data:

Associated Sample	Days Analyzed Outside Holding Time	Analyte	Qualifiers
NTS-MW-08 NTS-MW-10 NTS-MW-14 NTS-VMP-02	1	TVH	J

The remaining samples were properly preserved and were analyzed within 14 days of collection. The temperature at the time of sample receipt was within the recommended temperature range of 4 ± 2°C. Chain-of-custody, summary forms, and raw data were evaluated.

3. INSTRUMENT CALIBRATIONS: INITIAL AND CONTINUING STANDARDS

Initial instrument calibrations were performed according to requirements and met specified control limits.

TPH-Purgeables: Yes_X_ No___

Comments: The initial calibrations were performed according to the method criteria. The percent relative standard deviations (%RSDs) were less than or equal to 20% or the correlation coefficient was greater than 0.990. Summary forms and raw data were evaluated.

Continuing instrument calibrations were performed according to requirements and met specified control limits.

TPH-Purgeables: Yes___ No_X_

Comments: Continuing calibration standards were analyzed at the required frequency.

The following table lists the percent differences (%Ds) for compounds that were greater than 15% in the continuing calibrations and the qualifiers added to the data:

Compound	%D	Associated Samples	Qualifiers
TVH	18%	All samples	J/UJ

4. SURROGATE COMPOUND RECOVERY

Surrogate compound recovery analysis was performed according to method requirements and results met specified control limits.

TPH-Purgeables: Yes_X_ No___

Comments: Surrogate compounds were added to all samples and QC samples. The surrogate percent recoveries (%Rs) were all within the laboratory QC limits. Form 1s and raw data were evaluated.

5. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses were performed according to method requirements and results met recommended recovery and precision limits.

TPH-Purgeables: Yes_X_ No___

Comments: MS/MSD analyses were not performed for this SDG. However, the laboratory analyzed a laboratory control sample (LCS) and duplicate (LCSD). All percent recoveries and relative percent differences (RPDs) were within the laboratory QC limits for the LCS/LCSD analyses. Summary forms and raw data were evaluated.

The incorrect units were reported for the LCS analysis. Based on the value reported, the units should be ug/L. This was still not corrected with the laboratory resubmission.

6. LABORATORY BLANK ANALYSIS RESULTS

The laboratory blank analysis was performed according to method requirements and met specified control limits.

TPH-Purgeables: Yes___ No_X_

Comments: Method blanks were analyzed at the proper frequency. Summary forms and raw data were evaluated.

Contamination was detected in the blanks as summarized in the following table. Quantitation limits in the associated samples were raised in accordance with the rules set forth in the "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999.

Blank Target Compounds

Blank ID	Contaminant	Concentration Found in Blank (mg/L)	Associated Samples	Concentration Found in Sample (mg/L)	Qualifier/ Adjustment
Prep Blank	TVH	0.027	NTS-MW-14 NTS-MW-20 NTS-MW-21	0.026 0.026 0.023	0.05 U

7. SAMPLE RESULTS

The sample results were reviewed and all compound identifications were acceptable and met method requirements.

TPH-Purgeables: Yes___ No_X_

Comments: The results were initially reported incorrectly. The laboratory resubmitted the sample results. No other problems were identified with compound identification and quantitation.

8. Additional Comments or Problems/Resolutions Not Addressed Above

TPH-Purgeables: Yes___ No_X_

Comments: None.

ORGANIC DATA QUALITY ASSURANCE REVIEW

Region VIII

DATA QUALIFIER DEFINITIONS

For the purpose of Data Validation, the following code letters and associated definitions are provided for use by the data validator to summarize the data quality.

GENERAL QUALIFIERS for use with both INORGANIC and ORGANIC DATA

R - Reported value is "rejected." Resampling or reanalysis may be necessary to verify the presence or absence of the compound.

J - The associated numerical value is an estimated quantity because the Quality Control criteria were not met.

U J - The reported quantitation limit is estimated because Quality Control criteria were not met. Element or compound was not detected.

N J - Estimated value of a tentatively identified compound. ORGANICS analysis only.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-08

ACZ ID: ***L37293-01***
Date Sampled: *06/17/02 16:00*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B**
Extract Method: **Method**

Analyst: *jj*
Extract Date: *06/20/02 11:44*
Analysis Date: *06/20/02 11:44*
Dilution Factor: *1*

Compound	CAS	Result	QUAL	Units	MDL	PQL	
1,1,1,2-Tetrachloroethane	000630-20-6		U	ug/L	4	10	
1,1,1-Trichloroethane	000071-55-6		U	ug/L	10	30	
1,1,2,2-Tetrachloroethane	000079-34-5		U	ug/L	3	10	
1,1,2-Trichloroethane	000079-00-5		U	ug/L	4	10	
1,1-Dichloroethane	000075-34-3		U	ug/L	4	10	
1,1-Dichloroethene	000075-35-4		U	ug/L	4	10	
1,1-Dichloropropene	000563-58-6		U	ug/L	4	10	
1,2,3-Trichlorobenzene	000087-61-6		U	ug/L	4	10	
1,2,3-Trichloropropane	000096-18-4		U	ug/L	4	10	
1,2,4-Trichlorobenzene	000120-82-1		U	ug/L	3	10	
1,2,4-Trimethylbenzene	000095-63-6		U	ug/L	4	10	
1,2-Dibromo-3-chloropropane	000096-12-8		U	ug/L	4	10	
1,2-Dibromoethane	000106-93-4		U	ug/L	4	10	
1,2-Dichlorobenzene	000095-50-1		U	ug/L	4	10	
1,2-Dichloroethane	000107-06-2		U	ug/L	4	10	
1,2-Dichloropropane	000078-87-5		U	ug/L	4	10	
1,3,5-Trimethylbenzene	000108-67-8		U	ug/L	4	10	
1,3-Dichlorobenzene	000541-73-1		U	ug/L	4	10	UJ
1,3-Dichloropropane	000142-28-9		U	ug/L	4	10	UJ
1,4-Dichlorobenzene	000106-46-7		U	ug/L	4	10	
2,2-Dichloropropane	000594-20-7		U	ug/L	4	10	
2-Butanone	000078-93-3		U	ug/L	10	30	
2-Chloroethyl vinyl ether	000110-75-8		U	ug/L	50	100	
2-Chlorotoluene	000095-49-8		U	ug/L	4	10	
2-Hexanone	000591-78-6		U	ug/L	10	30	
4-Chlorotoluene	000106-43-4		U	ug/L	4	10	
4-Isopropyltoluene	000099-87-9		U	ug/L	4	10	UJ
4-Methyl-2-Pentanone	000108-10-1		U	ug/L	40	100	
Acetone	000067-64-1		U	ug/L	10	30	
Acrylonitrile	000107-13-1		U	ug/L	20	40	
Benzene	000071-43-2		U	ug/L	4	10	
Bromobenzene	000108-86-1		U	ug/L	4	10	
Bromochloromethane	000074-97-5		U	ug/L	4	10	
Bromodichloromethane	000075-27-4		U	ug/L	4	10	
Bromoform	000075-25-2		U	ug/L	4	10	
Bromomethane	000074-83-9		U	ug/L	4	10	
Carbon Disulfide	000075-15-0		U	ug/L	4	10	
Carbon Tetrachloride	000056-23-5		U	ug/L	10	30	
Chlorobenzene	000108-90-7		U	ug/L	4	10	
Chloroethane	000075-00-3		U	ug/L	4	10	
Chloroform	000067-66-3		U	ug/L	4	10	
Chloromethane	000074-87-3		U	ug/L	4	10	
cis-1,2-Dichloroethene	000156-59-2		U	ug/L	4	10	
cis-1,3-Dichloropropene	010061-01-5		U	ug/L	4	10	
Dibromochloromethane	000124-48-1		U	ug/L	4	10	

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-08

ACZ ID: *L37293-01*
Date Sampled: *06/17/02 16:00*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Dibromomethane	000074-95-3		U	ug/L	4	10	
Dichlorodifluoromethane	000075-71-8		U	ug/L	5	20	
Ethylbenzene	000100-41-4		U	ug/L	4	10	
Hexachlorobutadiene	000087-68-3		U	ug/L	4	10	
Isopropylbenzene	000098-82-8		U	ug/L	4	10	
m,p-Xylene	001330 20 7		U	ug/L	10	30	UJ
Methyl Tert Butyl Ether	001634-04-4	61		ug/L	4	10	
Methylene Chloride	000075-09-2		U	ug/L	4	10	UJ
Naphthalene	000091-20-3		U	ug/L	3	10	
n-Butylbenzene	000104-51-8		U	ug/L	4	10	
n-Propylbenzene	000103-65-1		U	ug/L	4	10	
o-Xylene	000095-47-6		U	ug/L	4	10	UJ
sec-Butylbenzene	000135-98-8		U	ug/L	4	10	
Styrene	000100-42-5		U	ug/L	4	10	UJ
tert-Butylbenzene	000098-06-6		U	ug/L	4	10	
Tetrachloroethene	000127-18-4		U	ug/L	4	10	
Toluene	000108-88-3		U	ug/L	4	10	
trans-1,2-Dichloroethene	000156-60-5		U	ug/L	4	10	
trans-1,3-Dichloropropene	010061-02-6		U	ug/L	3	10	
Trichloroethene	000079-01-6		U	ug/L	5	20	
Trichlorofluoromethane	000075-69-4		U	ug/L	4	10	
Vinyl Acetate	000108-05-4		U	ug/L	4	10	UJ
Vinyl Chloride	000075-01-4		U	ug/L	4	10	

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	108	%	86	115
Dibromofluoromethane	001868-53-7	106	%	86	118
Toluene-d8	002037-26-5	98	%	88	110

RF 8/30/02

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-10

ACZ ID: *L37293-02*
Date Sampled: *06/17/02 16:25*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B**
Extract Method: **Method**

Analyst: *jj*
Extract Date: *06/20/02 12:25*
Analysis Date: *06/20/02 12:25*
Dilution Factor: *1*

Benzene / Ethylbenzene 5X

Compound

Compound	CAS	Result	QUAL	Units	MDL	PQL	
1,1,1,2-Tetrachloroethane	000630-20-6		U	ug/L	4	10	
1,1,1-Trichloroethane	000071-55-6		U	ug/L	10	30	
1,1,2,2-Tetrachloroethane	000079-34-5		U	ug/L	3	10	
1,1,2-Trichloroethane	000079-00-5		U	ug/L	4	10	
1,1-Dichloroethane	000075-34-3		U	ug/L	4	10	
1,1-Dichloroethene	000075-35-4		U	ug/L	4	10	
1,1-Dichloropropene	000563-58-6		U	ug/L	4	10	
1,2,3-Trichlorobenzene	000087-61-6		U	ug/L	4	10	
1,2,3-Trichloropropane	000096-18-4		U	ug/L	4	10	
1,2,4-Trichlorobenzene	000120-82-1		U	ug/L	3	10	
1,2,4-Trimethylbenzene	000095-63-6	142		ug/L	4	10	
1,2-Dibromo-3-chloropropane	000096-12-8		U	ug/L	4	10	
1,2-Dibromoethane	000106-93-4		U	ug/L	4	10	
1,2-Dichlorobenzene	000095-50-1		U	ug/L	4	10	
1,2-Dichloroethane	000107-06-2	26		ug/L	4	10	
1,2-Dichloropropane	000078-87-5		U	ug/L	4	10	
1,3,5-Trimethylbenzene	000108-67-8	18		ug/L	4	10	
1,3-Dichlorobenzene	000541-73-1		U	ug/L	4	10	UJ
1,3-Dichloropropane	000142-28-9		U	ug/L	4	10	UJ
1,4-Dichlorobenzene	000106-46-7		U	ug/L	4	10	
2,2-Dichloropropane	000594-20-7		U	ug/L	4	10	
2-Butanone	000078-93-3		U	ug/L	10	30	
2-Chloroethyl vinyl ether	000110-75-8		U	ug/L	50	100	
2-Chlorotoluene	000095-49-8		U	ug/L	4	10	
2-Hexanone	000591-78-6		U	ug/L	10	30	
4-Chlorotoluene	000106-43-4		U	ug/L	4	10	
4-Isopropyltoluene	000099-87-9		U	ug/L	4	10	UJ
4-Methyl-2-Pentanone	000108-10-1		U	ug/L	40	100	
Acetone	000067-64-1		U	ug/L	10	30	
Acrylonitrile	000107-13-1		U	ug/L	20	40	
Benzene	000071-43-2	1490		ug/L	20	50	
Bromobenzene	000108-86-1		U	ug/L	4	10	
Bromochloromethane	000074-97-5		U	ug/L	4	10	
Bromodichloromethane	000075-27-4		U	ug/L	4	10	
Bromoform	000075-25-2		U	ug/L	4	10	
Bromomethane	000074-83-9		U	ug/L	4	10	
Carbon Disulfide	000075-15-0		U	ug/L	4	10	
Carbon Tetrachloride	000056-23-5		U	ug/L	10	30	
Chlorobenzene	000108-90-7		U	ug/L	4	10	
Chloroethane	000075-00-3		U	ug/L	4	10	
Chloroform	000067-66-3		U	ug/L	4	10	
Chloromethane	000074-87-3		U	ug/L	4	10	
cis-1,2-Dichloroethene	000156-59-2		U	ug/L	4	10	
cis-1,3-Dichloropropene	010061-01-5		U	ug/L	4	10	
Dibromochloromethane	000124-48-1		U	ug/L	4	10	

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-10

ACZ ID: *L37293-02*
Date Sampled: *06/17/02 16:25*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Dibromomethane	000074-95-3		U	ug/L	4	10	
Dichlorodifluoromethane	000075-71-8		U	ug/L	5	20	
Ethylbenzene	000100-41-4	500		ug/L	20	50	
Hexachlorobutadiene	000087-68-3		U	ug/L	4	10	
Isopropylbenzene	000098-82-8	6	J	ug/L	4	10	
m,p-Xylene	001330 20 7	150		ug/L	10	30	J
Methyl Tert Butyl Ether	001634-04-4		U	ug/L	4	10	
Methylene Chloride	000075-09-2		U	ug/L	4	10	UJ
Naphthalene	000091-20-3	9	J	ug/L	3	10	
n-Butylbenzene	000104-51-8		U	ug/L	4	10	
n-Propylbenzene	000103-65-1	63		ug/L	4	10	
o-Xylene	000095-47-6	7	J	ug/L	4	10	J
sec-Butylbenzene	000135-98-8		U	ug/L	4	10	
Styrene	000100-42-5		U	ug/L	4	10	UJ
tert-Butylbenzene	000098-06-6		U	ug/L	4	10	
Tetrachloroethene	000127-18-4		U	ug/L	4	10	
Toluene	000108-88-3	19		ug/L	4	10	
trans-1,2-Dichloroethene	000156-60-5		U	ug/L	4	10	
trans-1,3-Dichloropropene	010061-02-6		U	ug/L	3	10	
Trichloroethene	000079-01-6		U	ug/L	5	20	
Trichlorofluoromethane	000075-69-4		U	ug/L	4	10	
Vinyl Acetate	000108-05-4		U	ug/L	4	10	UJ
Vinyl Chloride	000075-01-4		U	ug/L	4	10	

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	104	%	86	115
Dibromofluoromethane	001868-53-7	100	%	86	118
Toluene-d8	002037-26-5	96.5	%	88	110

ACZ Laboratories, Inc.
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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-14

ACZ ID: *L37293-05*
Date Sampled: *06/17/02 15:35*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B**
Extract Method: **Method**

Analyst: *jj*
Extract Date: *06/20/02 14:28*
Analysis Date: *06/20/02 14:28*
Dilution Factor: *1*

Compound	CAS	Result	QUAL	Units	MDL	PQL	
1,1,1,2-Tetrachloroethane	000630-20-6		U	ug/L	4	10	
1,1,1-Trichloroethane	000071-55-6		U	ug/L	10	30	
1,1,2,2-Tetrachloroethane	000079-34-5		U	ug/L	3	10	
1,1,2-Trichloroethane	000079-00-5		U	ug/L	4	10	
1,1-Dichloroethane	000075-34-3		U	ug/L	4	10	
1,1-Dichloroethene	000075-35-4		U	ug/L	4	10	
1,1-Dichloropropene	000563-58-6		U	ug/L	4	10	
1,2,3-Trichlorobenzene	000087-61-6		U	ug/L	4	10	
1,2,3-Trichloropropane	000096-18-4		U	ug/L	4	10	
1,2,4-Trichlorobenzene	000120-82-1		U	ug/L	3	10	
1,2,4-Trimethylbenzene	000095-63-6		U	ug/L	4	10	
1,2-Dibromo-3-chloropropane	000096-12-8		U	ug/L	4	10	
1,2-Dibromoethane	000106-93-4		U	ug/L	4	10	
1,2-Dichlorobenzene	000095-50-1		U	ug/L	4	10	
1,2-Dichloroethane	000107-06-2		U	ug/L	4	10	
1,2-Dichloropropane	000078-87-5		U	ug/L	4	10	
1,3,5-Trimethylbenzene	000108-67-8		U	ug/L	4	10	
1,3-Dichlorobenzene	000541-73-1		U	ug/L	4	10	UJ
1,3-Dichloropropane	000142-28-9		U	ug/L	4	10	UJ
1,4-Dichlorobenzene	000106-46-7		U	ug/L	4	10	
2,2-Dichloropropane	000594-20-7		U	ug/L	4	10	
2-Butanone	000078-93-3		U	ug/L	10	30	
2-Chloroethyl vinyl ether	000110-75-8		U	ug/L	50	100	
2-Chlorotoluene	000095-49-8		U	ug/L	4	10	
2-Hexanone	000591-78-6		U	ug/L	10	30	
4-Chlorotoluene	000106-43-4		U	ug/L	4	10	
4-Isopropyltoluene	000099-87-9		U	ug/L	4	10	UJ
4-Methyl-2-Pentanone	000108-10-1		U	ug/L	40	100	
Acetone	000067-64-1		U	ug/L	10	30	
Acrylonitrile	000107-13-1		U	ug/L	20	40	
Benzene	000071-43-2		U	ug/L	4	10	
Bromobenzene	000108-86-1		U	ug/L	4	10	
Bromochloromethane	000074-97-5		U	ug/L	4	10	
Bromodichloromethane	000075-27-4		U	ug/L	4	10	
Bromoform	000075-25-2		U	ug/L	4	10	
Bromomethane	000074-83-9		U	ug/L	4	10	
Carbon Disulfide	000075-15-0		U	ug/L	4	10	
Carbon Tetrachloride	000056-23-5		U	ug/L	10	30	
Chlorobenzene	000108-90-7		U	ug/L	4	10	
Chloroethane	000075-00-3		U	ug/L	4	10	
Chloroform	000067-66-3		U	ug/L	4	10	
Chloromethane	000074-87-3		U	ug/L	4	10	
cis-1,2-Dichloroethene	000156-59-2		U	ug/L	4	10	
cis-1,3-Dichloropropene	010061-01-5		U	ug/L	4	10	
Dibromochloromethane	000124-48-1		U	ug/L	4	10	

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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-14

ACZ ID: ***L37293-05***
Date Sampled: *06/17/02 15:35*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Dibromomethane	000074-95-3	U	ug/L	4	10	
Dichlorodifluoromethane	000075-71-8	U	ug/L	5	20	
Ethylbenzene	000100-41-4	U	ug/L	4	10	
Hexachlorobutadiene	000087-68-3	U	ug/L	4	10	
Isopropylbenzene	000098-82-8	U	ug/L	4	10	
m,p-Xylene	001330 20 7	U	ug/L	10	30	UJ
Methyl Tert Butyl Ether	001634-04-4	U	ug/L	4	10	
Methylene Chloride	000075-09-2	U	ug/L	4	10	UJ
Naphthalene	000091-20-3	U	ug/L	3	10	
n-Butylbenzene	000104-51-8	U	ug/L	4	10	
n-Propylbenzene	000103-65-1	U	ug/L	4	10	
o-Xylene	000095-47-6	U	ug/L	4	10	UJ
sec-Butylbenzene	000135-98-8	U	ug/L	4	10	
Styrene	000100-42-5	U	ug/L	4	10	UJ
tert-Butylbenzene	000098-06-6	U	ug/L	4	10	
Tetrachloroethene	000127-18-4	U	ug/L	4	10	
Toluene	000108-88-3	U	ug/L	4	10	
trans-1,2-Dichloroethene	000156-60-5	U	ug/L	4	10	
trans-1,3-Dichloropropene	010061-02-6	U	ug/L	3	10	
Trichloroethene	000079-01-6	U	ug/L	5	20	
Trichlorofluoromethane	000075-69-4	U	ug/L	4	10	
Vinyl Acetate	000108-05-4	U	ug/L	4	10	UJ
Vinyl Chloride	000075-01-4	U	ug/L	4	10	

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	100	%	86	115
Dibromofluoromethane	001868-53-7	92.7	%	86	118
Toluene-d8	002037-26-5	96.7	%	88	110

TE 8/30/02

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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-20

ACZ ID: *L37293-06*
Date Sampled: *06/17/02 15:40*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B**
Extract Method: **Method**

Analyst: *jj*
Extract Date: *06/20/02 15:09*
Analysis Date: *06/20/02 15:09*
Dilution Factor: *1*

Compound	CAS	Result	QUAL	Units	MDL	PQL	
1,1,1,2-Tetrachloroethane	000630-20-6		U	ug/L	4	10	
1,1,1-Trichloroethane	000071-55-6		U	ug/L	10	30	
1,1,2,2-Tetrachloroethane	000079-34-5		U	ug/L	3	10	
1,1,2-Trichloroethane	000079-00-5		U	ug/L	4	10	
1,1-Dichloroethane	000075-34-3		U	ug/L	4	10	
1,1-Dichloroethene	000075-35-4		U	ug/L	4	10	
1,1-Dichloropropene	000563-58-6		U	ug/L	4	10	
1,2,3-Trichlorobenzene	000087-61-6		U	ug/L	4	10	
1,2,3-Trichloropropane	000096-18-4		U	ug/L	4	10	
1,2,4-Trichlorobenzene	000120-82-1		U	ug/L	3	10	
1,2,4-Trimethylbenzene	000095-63-6		U	ug/L	4	10	
1,2-Dibromo-3-chloropropane	000096-12-8		U	ug/L	4	10	
1,2-Dibromoethane	000106-93-4		U	ug/L	4	10	
1,2-Dichlorobenzene	000095-50-1		U	ug/L	4	10	
1,2-Dichloroethane	000107-06-2		U	ug/L	4	10	
1,2-Dichloropropane	000078-87-5		U	ug/L	4	10	
1,3,5-Trimethylbenzene	000108-67-8		U	ug/L	4	10	
1,3-Dichlorobenzene	000541-73-1		U	ug/L	4	10	UJ
1,3-Dichloropropane	000142-28-9		U	ug/L	4	10	UJ
1,4-Dichlorobenzene	000106-46-7		U	ug/L	4	10	
2,2-Dichloropropane	000594-20-7		U	ug/L	4	10	
2-Butanone	000078-93-3		U	ug/L	10	30	
2-Chloroethyl vinyl ether	000110-75-8		U	ug/L	50	100	
2-Chlorotoluene	000095-49-8		U	ug/L	4	10	
2-Hexanone	000591-78-6		U	ug/L	10	30	
4-Chlorotoluene	000106-43-4		U	ug/L	4	10	
4-Isopropyltoluene	000099-87-9		U	ug/L	4	10	UJ
4-Methyl-2-Pentanone	000108-10-1		U	ug/L	40	100	
Acetone	000067-64-1		U	ug/L	10	30	
Acrylonitrile	000107-13-1		U	ug/L	20	40	
Benzene	000071-43-2		U	ug/L	4	10	
Bromobenzene	000108-86-1		U	ug/L	4	10	
Bromochloromethane	000074-97-5		U	ug/L	4	10	
Bromodichloromethane	000075-27-4		U	ug/L	4	10	
Bromoform	000075-25-2		U	ug/L	4	10	
Bromomethane	000074-83-9		U	ug/L	4	10	
Carbon Disulfide	000075-15-0		U	ug/L	4	10	
Carbon Tetrachloride	000056-23-5		U	ug/L	10	30	
Chlorobenzene	000108-90-7		U	ug/L	4	10	
Chloroethane	000075-00-3		U	ug/L	4	10	
Chloroform	000067-66-3		U	ug/L	4	10	
Chloromethane	000074-87-3		U	ug/L	4	10	
cis-1,2-Dichloroethene	000156-59-2		U	ug/L	4	10	
cis-1,3-Dichloropropene	010061-01-5		U	ug/L	4	10	
Dibromochloromethane	000124-48-1		U	ug/L	4	10	

ACZ Laboratories, Inc.
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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-20

ACZ ID: *L37293-06*
Date Sampled: *06/17/02 15:40*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Dibromomethane	000074-95-3	U	ug/L	4	10	
Dichlorodifluoromethane	000075-71-8	U	ug/L	5	20	
Ethylbenzene	000100-41-4	U	ug/L	4	10	
Hexachlorobutadiene	000087-68-3	U	ug/L	4	10	
Isopropylbenzene	000098-82-8	U	ug/L	4	10	
m,p-Xylene	001330 20 7	U	ug/L	10	30	UJ
Methyl Tert Butyl Ether	001634-04-4	U	ug/L	4	10	
Methylene Chloride	000075-09-2	U	ug/L	4	10	UJ
Naphthalene	000091-20-3	U	ug/L	3	10	
n-Butylbenzene	000104-51-8	U	ug/L	4	10	
n-Propylbenzene	000103-65-1	U	ug/L	4	10	
o-Xylene	000095-47-6	U	ug/L	4	10	UJ
sec-Butylbenzene	000135-98-8	U	ug/L	4	10	
Styrene	000100-42-5	U	ug/L	4	10	UJ
tert-Butylbenzene	000098-06-6	U	ug/L	4	10	
Tetrachloroethene	000127-18-4	U	ug/L	4	10	
Toluene	000108-88-3	U	ug/L	4	10	
trans-1,2-Dichloroethene	000156-60-5	U	ug/L	4	10	
trans-1,3-Dichloropropene	010061-02-6	U	ug/L	3	10	
Trichloroethene	000079-01-6	U	ug/L	5	20	
Trichlorofluoromethane	000075-69-4	U	ug/L	4	10	
Vinyl Acetate	000108-05-4	U	ug/L	4	10	UJ
Vinyl Chloride	000075-01-4	U	ug/L	4	10	

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	104	%	86	115
Dibromofluoromethane	001868-53-7	93.3	%	86	118
Toluene-d8	002037-26-5	96.9	%	88	110

8/30/02

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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-21

ACZ ID: *L37293-07*
Date Sampled: *06/17/02 14:00*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B**
Extract Method: **Method**

Analyst: *jj*
Extract Date: *06/20/02 15:50*
Analysis Date: *06/20/02 15:50*
Dilution Factor: *1*

Compound	CAS	Result	QUAL	Units	MDL	PQL	
1,1,1,2-Tetrachloroethane	000630-20-6		U	ug/L	4	10	
1,1,1-Trichloroethane	000071-55-6		U	ug/L	10	30	
1,1,2,2-Tetrachloroethane	000079-34-5		U	ug/L	3	10	
1,1,2-Trichloroethane	000079-00-5		U	ug/L	4	10	
1,1-Dichloroethane	000075-34-3		U	ug/L	4	10	
1,1-Dichloroethene	000075-35-4		U	ug/L	4	10	
1,1-Dichloropropene	000563-58-6		U	ug/L	4	10	
1,2,3-Trichlorobenzene	000087-61-6		U	ug/L	4	10	
1,2,3-Trichloropropane	000096-18-4		U	ug/L	4	10	
1,2,4-Trichlorobenzene	000120-82-1		U	ug/L	3	10	
1,2,4-Trimethylbenzene	000095-63-6		U	ug/L	4	10	
1,2-Dibromo-3-chloropropane	000096-12-8		U	ug/L	4	10	
1,2-Dibromoethane	000106-93-4		U	ug/L	4	10	
1,2-Dichlorobenzene	000095-50-1		U	ug/L	4	10	
1,2-Dichloroethane	000107-06-2		U	ug/L	4	10	
1,2-Dichloropropane	000078-87-5		U	ug/L	4	10	
1,3,5-Trimethylbenzene	000108-67-8		U	ug/L	4	10	
1,3-Dichlorobenzene	000541-73-1		U	ug/L	4	10	UJ
1,3-Dichloropropane	000142-28-9		U	ug/L	4	10	UJ
1,4-Dichlorobenzene	000106-46-7		U	ug/L	4	10	
2,2-Dichloropropane	000594-20-7		U	ug/L	4	10	
2-Butanone	000078-93-3		U	ug/L	10	30	
2-Chloroethyl vinyl ether	000110-75-8		U	ug/L	50	100	
2-Chlorotoluene	000095-49-8		U	ug/L	4	10	
2-Hexanone	000591-78-6		U	ug/L	10	30	
4-Chlorotoluene	000106-43-4		U	ug/L	4	10	
4-Isopropyltoluene	000099-87-9		U	ug/L	4	10	UJ
4-Methyl-2-Pentanone	000108-10-1		U	ug/L	40	100	
Acetone	000067-64-1		U	ug/L	10	30	
Acrylonitrile	000107-13-1		U	ug/L	20	40	
Benzene	000071-43-2		U	ug/L	4	10	
Bromobenzene	000108-86-1		U	ug/L	4	10	
Bromochloromethane	000074-97-5		U	ug/L	4	10	
Bromodichloromethane	000075-27-4		U	ug/L	4	10	
Bromoform	000075-25-2		U	ug/L	4	10	
Bromomethane	000074-83-9		U	ug/L	4	10	
Carbon Disulfide	000075-15-0		U	ug/L	4	10	
Carbon Tetrachloride	000056-23-5		U	ug/L	10	30	
Chlorobenzene	000108-90-7		U	ug/L	4	10	
Chloroethane	000075-00-3		U	ug/L	4	10	
Chloroform	000067-66-3		U	ug/L	4	10	
Chloromethane	000074-87-3		U	ug/L	4	10	
cis-1,2-Dichloroethene	000156-59-2		U	ug/L	4	10	
cis-1,3-Dichloropropene	010061-01-5		U	ug/L	4	10	
Dibromochloromethane	000124-48-1		U	ug/L	4	10	

8/22/02

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-21

ACZ ID: *L37293-07*
Date Sampled: *06/17/02 14:00*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Dibromomethane	000074-95-3	U	ug/L	4	10	
Dichlorodifluoromethane	000075-71-8	U	ug/L	5	20	
Ethylbenzene	000100-41-4	U	ug/L	4	10	
Hexachlorobutadiene	000087-68-3	U	ug/L	4	10	
Isopropylbenzene	000098-82-8	U	ug/L	4	10	
m,p-Xylene	001330 20 7	U	ug/L	10	30	UJ
Methyl Tert Butyl Ether	001634-04-4	U	ug/L	4	10	
Methylene Chloride	000075-09-2	U	ug/L	4	10	UJ
Naphthalene	000091-20-3	U	ug/L	3	10	
n-Butylbenzene	000104-51-8	U	ug/L	4	10	
n-Propylbenzene	000103-65-1	U	ug/L	4	10	
o-Xylene	000095-47-6	U	ug/L	4	10	UJ
sec-Butylbenzene	000135-98-8	U	ug/L	4	10	
Styrene	000100-42-5	U	ug/L	4	10	UJ
tert-Butylbenzene	000098-06-6	U	ug/L	4	10	
Tetrachloroethene	000127-18-4	U	ug/L	4	10	
Toluene	000108-88-3	U	ug/L	4	10	
trans-1,2-Dichloroethene	000156-60-5	U	ug/L	4	10	
trans-1,3-Dichloropropene	010061-02-6	U	ug/L	3	10	
Trichloroethene	000079-01-6	U	ug/L	5	20	
Trichlorofluoromethane	000075-69-4	U	ug/L	4	10	
Vinyl Acetate	000108-05-4	U	ug/L	4	10	UJ
Vinyl Chloride	000075-01-4	U	ug/L	4	10	

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	100	%	86	115
Dibromofluoromethane	001868-53-7	97.9	%	86	118
Toluene-d8	002037-26-5	98.5	%	88	110

8/12/02

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-VMP-02

ACZ ID: *L37293-08*
Date Sampled: *06/17/02 14:40*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Volatile Organics by GC/MS

Analysis Method: **M8260B**
Extract Method: **Method**

Analyst: *jj*
Extract Date: *06/20/02 19:04*
Analysis Date: *06/20/02 19:04*
Dilution Factor: *5*

Compound	CAS	Result	QUAL	Units	MDL	PQL	
1,1,1,2-Tetrachloroethane	000630-20-6		U	ug/L	20	50	
1,1,1-Trichloroethane	000071-55-6		U	ug/L	50	100	
1,1,2,2-Tetrachloroethane	000079-34-5		U	ug/L	20	50	
1,1,2-Trichloroethane	000079-00-5		U	ug/L	20	50	
1,1-Dichloroethane	000075-34-3		U	ug/L	20	50	
1,1-Dichloroethene	000075-35-4		U	ug/L	20	50	
1,1-Dichloropropene	000563-58-6		U	ug/L	20	50	
1,2,3-Trichlorobenzene	000087-61-6		U	ug/L	20	50	
1,2,3-Trichloropropane	000096-18-4		U	ug/L	20	50	
1,2,4-Trichlorobenzene	000120-82-1		U	ug/L	20	50	
1,2,4-Trimethylbenzene	000095-63-6		U	ug/L	20	50	
1,2-Dibromo-3-chloropropane	000096-12-8		U	ug/L	20	50	
1,2-Dibromoethane	000106-93-4		U	ug/L	20	50	
1,2-Dichlorobenzene	000095-50-1		U	ug/L	20	50	
1,2-Dichloroethane	000107-06-2		U	ug/L	20	50	
1,2-Dichloropropane	000078-87-5		U	ug/L	20	50	
1,3,5-Trimethylbenzene	000108-67-8		U	ug/L	20	50	
1,3-Dichlorobenzene	000541-73-1		U	ug/L	20	50	UJ
1,3-Dichloropropane	000142-28-9		U	ug/L	20	50	UJ
1,4-Dichlorobenzene	000106-46-7		U	ug/L	20	50	
2,2-Dichloropropane	000594-20-7		U	ug/L	20	50	
2-Butanone	000078-93-3		U	ug/L	50	100	
2-Chloroethyl vinyl ether	000110-75-8		U	ug/L	300	600	
2-Chlorotoluene	000095-49-8		U	ug/L	20	50	
2-Hexanone	000591-78-6		U	ug/L	50	100	
4-Chlorotoluene	000106-43-4		U	ug/L	20	50	
4-Isopropyltoluene	000099-87-9		U	ug/L	20	50	UJ
4-Methyl-2-Pentanone	000108-10-1		U	ug/L	200	500	
Acetone	000067-64-1		U	ug/L	50	100	
Acrylonitrile	000107-13-1		U	ug/L	80	200	
Benzene	000071-43-2	70		ug/L	20	50	
Bromobenzene	000108-86-1		U	ug/L	20	50	
Bromochloromethane	000074-97-5		U	ug/L	20	50	
Bromodichloromethane	000075-27-4		U	ug/L	20	50	
Bromoform	000075-25-2		U	ug/L	20	50	
Bromomethane	000074-83-9		U	ug/L	20	50	
Carbon Disulfide	000075-15-0		U	ug/L	20	50	
Carbon Tetrachloride	000056-23-5		U	ug/L	50	100	
Chlorobenzene	000108-90-7		U	ug/L	20	50	
Chloroethane	000075-00-3		U	ug/L	20	50	
Chloroform	000067-66-3		U	ug/L	20	50	
Chloromethane	000074-87-3		U	ug/L	20	50	
cis-1,2-Dichloroethene	000156-59-2		U	ug/L	20	50	
cis-1,3-Dichloropropene	010061-01-5		U	ug/L	20	50	
Dibromochloromethane	000124-48-1		U	ug/L	20	50	

D 8/21/02

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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-VMP-02

ACZ ID: *L37293-08*
Date Sampled: *06/17/02 14:40*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Dibromomethane	000074-95-3		U	ug/L	20	50	
Dichlorodifluoromethane	000075-71-8		U	ug/L	30	80	
Ethylbenzene	000100-41-4		U	ug/L	20	50	
Hexachlorobutadiene	000087-68-3		U	ug/L	20	50	
Isopropylbenzene	000098-82-8		U	ug/L	20	50	
m,p-Xylene	001330 20 7		U	ug/L	50	100	UJ
Methyl Tert Butyl Ether	001634-04-4	360		ug/L	20	50	
Methylene Chloride	000075-09-2		U	ug/L	20	50	UJ
Naphthalene	000091-20-3		U	ug/L	20	50	
n-Butylbenzene	000104-51-8		U	ug/L	20	50	
n-Propylbenzene	000103-65-1		U	ug/L	20	50	
o-Xylene	000095-47-6		U	ug/L	20	50	UJ
sec-Butylbenzene	000135-98-8		U	ug/L	20	50	
Styrene	000100-42-5		U	ug/L	20	50	UJ
tert-Butylbenzene	000098-06-6		U	ug/L	20	50	
Tetrachloroethene	000127-18-4		U	ug/L	20	50	
Toluene	000108-88-3		U	ug/L	20	50	
trans-1,2-Dichloroethene	000156-60-5		U	ug/L	20	50	
trans-1,3-Dichloropropene	010061-02-6		U	ug/L	20	50	
Trichloroethene	000079-01-6		U	ug/L	30	80	
Trichlorofluoromethane	000075-69-4		U	ug/L	20	50	
Vinyl Acetate	000108-05-4		U	ug/L	20	50	UJ
Vinyl Chloride	000075-01-4		U	ug/L	20	50	

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	102	%	86	115
Dibromofluoromethane	001868-53-7	100	%	86	118
Toluene-d8	002037-26-5	95.5	%	88	110

RL 6/30/02

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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-08

ACZ ID: ***L37293-01***
Date Sampled: *06/17/02 16:00*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Total Volatile Hydrocarbons

Analysis Method: **M8015B GC/FID**
Extract Method: **Method**

Analyst: *cbr/km on*
Extract Date: *06/25/02 13:51*
Analysis Date: *06/25/02 13:51*
Dilution Factor: *1*

Compound

Compound	CAS	Result	QUAL	Units	MDL	PQL
TVH C6 to C10		0.22		mg/L	0.01	0.05

J

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	102	%	80	120

See case narrative.

ok
KsA
9/18/02

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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-10

ACZ ID: *L37293-02*
Date Sampled: *06/17/02 16:25*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Total Volatile Hydrocarbons

Analysis Method: **M8015B GC/FID**
Extract Method: **Method**

Analyst: *cbr/km on*
Extract Date: *06/25/02 14:33*
Analysis Date: *06/25/02 14:33*
Dilution Factor: *20*

Compound	CAS	Result	QUAL	Units	MDL	PQL
TVH C6 to C10		3.5		mg/L	0.2	1

J

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	111	%	80	120

See case narrative.

ok
KsA
9/18/02

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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-14

ACZ ID: *L37293-05*
Date Sampled: *06/17/02 15:35*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Total Volatile Hydrocarbons

Analysis Method: **M8015B GC/FID**
Extract Method: **Method**

Analyst: *cbr/km on*
Extract Date: *06/25/02 15:18*
Analysis Date: *06/25/02 15:18*
Dilution Factor: *1*

Compound

Compound	CAS	Result	QUAL	Units	MDL	PQL
TVH C6 to C10		0.026	J	mg/L	0.01	0.05

0.05 UJ

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	97.8	%	80	120

See case narrative.

OK
LSA
9/18/02

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-20

ACZ ID: *L37293-06*
Date Sampled: *06/17/02 15:40*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Total Volatile Hydrocarbons

Analysis Method: **M8015B GC/FID**
Extract Method: **Method**

Analyst: *cbr/km on*
Extract Date: *06/25/02 16:01*
Analysis Date: *06/25/02 16:01*
Dilution Factor: *1*

Compound

Compound	CAS	Result	QUAL	Units	MDL	PQL
TVH C6 to C10		0.026	J	mg/L	0.01	0.05

0.05 U5

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	95.2	%	80	120

See case narrative.

ok KsA 9/18/02

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Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-MW-21

ACZ ID: *L37293-07*
Date Sampled: *06/17/02 14:00*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Total Volatile Hydrocarbons

Analysis Method: **M8015B GC/FID**
Extract Method: **Method**

Analyst: *cbr/km on*
Extract Date: *06/25/02 16:43*
Analysis Date: *06/25/02 16:43*
Dilution Factor: *1*

Compound	CAS	Result	QUAL	Units	MDL	PQL
TVH C6 to C10		0.023	J	mg/L	0.01	0.05

0.05 UJ

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	98.6	%	80	120

See case narrative.

OK
LsA
9/18/02

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Organic Analytical Results

URS Operating Services, Inc.
Project ID: 600143/OS02P8122
Sample ID: NTS-VMP-02

ACZ ID: ***L37293-08***
Date Sampled: *06/17/02 14:40*
Date Received: *06/18/02*
Sample Matrix: *Surface Water*

Total Volatile Hydrocarbons

Analysis Method: **M8015B GC/FID**
Extract Method: **Method**

Analyst: *cbr/km on*
Extract Date: *06/25/02 17:26*
Analysis Date: *06/25/02 17:26*
Dilution Factor: *1*

Compound

Compound	CAS	Result	QUAL	Units	MDL	PQL
TVH C6 to C10		0.659		mg/L	0.01	0.05

J

Surrogate Recoveries

Surrogate	CAS	% Recovery	Units	LCL	UCL
Bromofluorobenzene	000460-00-4	98.6	%	80	120

See case narrative.

QL
1/5A
9/18/02